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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,176	03/10/2004	Bindu Rama Rao	14910US02	4061

23446 7590 05/13/2009
MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER	
DESIR, PIERRE LOUIS	
ART UNIT	PAPER NUMBER
2617	
MAIL DATE	DELIVERY MODE
05/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,176	RAO ET AL.	
	Examiner	Art Unit	
	PIERRE-LOUIS DESIR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-16, 18-30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 24-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

On 10/06/2006, new claims 24-30 were presented with subject matter, i.e., computer-readable storage, which was not described n the specification in such a way as to reasonably convey that the inventor had possession of the claimed invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moles et al. (Moles), US Patent No. 6615038 in view of Lee et al. (Lee), US 20040031029 A1, Shah, U.S. Patent No. 6029065, and Bridges et al. (Bridges), US 20030186695 A1.

Regarding claim 1, Moles discloses a mobile electronic device network employing provisioning techniques for updating electronic devices (see abstract), the network comprising: a device server capable of dispensing at least one update (i.e., mobile station configuration server) (see fig. 2, col. 6, lines 13-16); an electronic device having at least one of firmware and software (i.e., mobile station) (see fig. 2, and col. 6, lines 28-39), the electronic device being communicatively coupled to the device server (see fig. 2).

Moles does discloses a network wherein when an unprovisioned mobile station, such as MS 112, accesses wireless network 100, the BS 101 and/or MSC 140, using the handset data in HLR 155, identifies MS 112 as an unprovisioned handset and performs an over-the-air (OTA) service provisioning of MS 112. Either during the service provisioning or at a subsequent time, mobile station configuration server 160 gathers configuration data from MS 112 and stores it in a configuration record in a database. Thereafter, mobile station configuration server 160 may from time to time transmit mobile station updates to MS 112 to correct software defects or to add new features (see figs 2-4, col. 6, lines 28-39).

Moles, however, does not specifically disclose a network comprising an update service in the electronic device, presence of the update service in the electronic device being determinable by the network, wherein when enabled the update service indicates to the network capability of the electronic device to update at least one of firmware and software, electronic device

employing the at least one update to update the at least one of firmware and software, and wherein one or more parameters specific to updating of firmware and software in the electronic device are provisioned during provisioning of a number assignment module.

However, Lee discloses a network comprising an update service in the electronic device, wherein the electronic device employing the at least one update to update the at least one of firmware and software (i.e., the update schedule specifies the time when an update for a particular software component in a particular networked device should be performed. Optionally, the update schedule may also include a priority classification for the update. When the scheduled time arrives to update a particular software component on a particular networked device, a software update engine (which may include one or more individual sub-engines) sends the update parameters regarding the update file, along with any other parameters relevant to the update, to a local update agent local to the particular networked device on which the software component to be updated is located. The information sent includes, for example, parameters indicating where in the network or on the Internet the actual update file may be found and downloaded) (see paragraph 22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Lee with the teachings described by Moles to arrive at the claimed invention. A motivation for doing so would have been to keep the software in proper working order.

The combination of Moles and Lee, however, does not specifically disclose a network presence of the update service in the electronic device being determinable by the network,

wherein when enabled the update service indicates to the network capability of the electronic device to update at least one of firmware and software.

However, Shah discloses a network presence of the update service in the electronic device being determinable by the network, wherein when enabled the update service indicates to the network capability of the electronic device to update at least one of firmware and software (i.e., the network, whether it is the mobile's home network or a visited network, possesses means for determining whether a mobile phone is OTAPA capable. Note that the visited network may establish OTAPA support for a particular mobile station using IS-41 communications with the home network. In the OTAPA procedure, the network base station sends a General Page Message to the mobile phone using the EF number. After first verifying its identity using the standardized Authentication process, if the mobile phone has OTAPA capability, it responds with a Page Response Message, indicating support for the EF by sending the EF number. If the mobile station does not support the option, the response will indicate that the option is not available. Once the presence of the option is confirmed, the base station transmits a Channel Assignment Message, telling the mobile station to proceed to the Traffic Channel. Once the mobile station is on the Traffic Channel, an OTASP Data Message is sent that an additional fee is charged for the use of the feature and requesting acknowledgment of acceptance. If accepted, a second OTASP Data Message is sent containing a Extended Feature Change Code (EFCC). If the EFCC matches the EFCC for the mobile station, it is verified by the mobile unit, after which it may be used to unlock the mobile station, update the feature code(s) and store the updated feature code(s) into the phone's memory (see col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to provide a user transparent conversion of a first set of network feature codes to a different, second set of feature codes.

The combination of Moles, Lee, and Shah, however, does not specifically disclose a network wherein one or more parameters specific to updating of firmware and software in the electronic device are provisioned during provisioning of a number assignment module.

However, Bridges discloses that in a reprogramming scenario, the PSL/IRDB will be downloaded will be downloaded with other OTAF information similar to that for new activations. In other words, upon reprogramming, if the National Account (NA), COS, MIN (i.e., NAM parameters) and/or any other parameters change, each changed parameter is reprogrammed or downloaded into the mobile station 68 along with the new PSL/IRDB. If none of the parameters have changed, only the updated PSL/IRDB is downloaded to the mobile station 68 (see paragraph 78. Also refer to paragraph 123).

As can be seen above, PSL/IRDB are updated (i.e., provisioned) during provisioning of NAM parameters.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Bridges with the teachings described by Moles, Lee, and Shah to arrive at the claimed invention. A motivation for doing so would have been to facilitate and ease over-the air provisioning process.

Regarding claim 2, Moles discloses a network (see claim 1 rejection) wherein the device server is adapted to store and dispense a plurality of updates (i.e., either during the service provisioning or at a subsequent time, mobile station configuration server 160 gathers configuration data from MS 112 and stores it in a configuration record in a database) (see figs. 2-4, col. 6, lines 33-39), wherein the at least one update dispensed to the electronic device is selected from the plurality of updates based upon characteristics of the electronic device communicated to the device server (see figs. 2-4, col. 6, lines 33-39). Also refer to Lee paragraph 22.

Regarding claim 3, Moles discloses a network (see claim 2 rejection) further comprising: scheduling software for at least one update of one of firmware and software in the electronic device during administration of the NAM parameters by the network (i.e., mobile station update controller may also monitor the status of update schedule file in comparison with timer to determine when software associated with one or more handsets is to be updated which would obviously takes place during administration of NAM parameters) (see col. 7, line 36 to col. 8, line 26). Also refer to Lee paragraph 22.

Regarding claim 4, Moles discloses a network as described above (see claim 3 rejection).

Although Moles discloses a network wherein the over-the-air provisioning function comprises a software (see col. 6, lines 38-44), Moles does not specifically disclose a network wherein the network is capable of determining whether the electronic device supports an over-the-air provisioning function, and wherein the electronic device is capable of executing the over-the-air provisioning function.

However, Shah discloses a network wherein the network, whether it is the mobile's home network or a visited network, possesses means for determining whether a mobile phone is OTAPA capable. Note that the visited network may establish OTAPA support for a particular mobile station using IS-41 communications with the home network. In the OTAPA procedure, the network base station sends a General Page Message to the mobile phone using the EF number. After first verifying its identity using the standardized Authentication process, if the mobile phone has OTAPA capability, it responds with a Page Response Message, indicating support for the EF by sending the EF number. Once the presence of the option is confirmed, a second OTASP Data Message is sent containing a Extended Feature Change Code (EFCC). If the EFCC matches the EFCC for the mobile station, it is verified by the mobile unit, after which it may be used to unlock the mobile station, update the feature code(s) and store the updated feature code(s) into the phone's memory (see col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to provide a user transparent conversion of a first set of network feature codes to a different, second set of feature codes.

Regarding claim 5, Moles discloses a network (see claim 4 rejection) wherein one of the firmware update function and the software update function in the electronic device is invoked (see col. 26, lines 28-44, and col. 8, lines 32-40).

Although Moles discloses a network as described, Moles does not specifically disclose a network wherein the invoking is based upon one of a firmware update service option and a software update service option provided in the electronic device.

However, Shah discloses a network wherein service option is provided in the electronic device (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to provide means for simplifying the administration of parameters.

Regarding claim 6, Moles discloses a network (see claim 5 rejection) further comprising: a network server determining a service option and for permitting the electronic device to initiate over-the-air access to one of the firmware update service option and the software update service option in the electronic device (i.e., mobile station configuration server) (see fig. 2, col. 6, lines 13-16), and wherein the network is adapted to invoke the update agent while initializing a number assignment module in the electronic device (i.e., service provisioning initiates an over-the-air (OTA) process that activates in the cellular handset a number assignment module (see col. 1, line 66-col. 2, line 2). Although Moles discloses a network as described, Moles does not specifically disclose a network wherein the update agent is in the electronic device, and wherein the network is adapted to employ the means for determining a service option to determine one of an enabled firmware update service option and an enabled software update service option in the electronic device. However, Lee discloses a network wherein the update agent is in the electronic device (see Lee: paragraph 22). Also, Shah discloses a network wherein the base station will

determine what features the mobile station will support (see abstract), and based on that determination, the base station downloads information to the mobile station which will notify the mobile station of which network features are available and how they may be accessed in the network (see Shah abstract, also refer to col. 8, lines 5-48). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah and Lee with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to provide means for simplifying the administration of parameters.

Regarding claim 7, Moles discloses a network (see claim 6 rejection) wherein the at least one update selected from the plurality of updates is disseminated to the electronic device (see figs. 2-4, col. 6, lines 33-39), and wherein the update agent is invoked in the electronic device for updating one of firmware and software employing the at least one updates (i.e., mobile station parameters are updated according to contents of upgrading file) (see fig. 4, col. 8, lines 54-59).

Although Moles discloses a network as described, Moles does not specifically disclose a network wherein one of the firmware update service option and the software update service option in the electronic device is adapted to be set by the network without user intervention.

However Shah discloses a network wherein service option is adapted to be set by the network without user intervention (i.e., the process of downloading the feature code information does not require the user's intervention) (see abstract. Also refer to col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah with the teachings disclosed by Moles

to arrive at the claimed invention. A motivation for doing so would have been to provide to the user a process wherein any conversion required from the user's familiar feature access process is transparent to the user.

Regarding claim 8, Moles discloses a network (see claim 7 rejection) further comprising: over-the-air delivery of the at least one update to the electronic device from a delivery server (i.e., when an unprovisioned mobile station accesses wireless network, then BS and/or MSC, using the handset data in HLR, identifies MS as an unprovisioned handset and performs an over-the-air (OTA) service provisioning of the MS. Either during the service provisioning or at a subsequent time, mobile station configuration server gathers configuration data from MS and stores it in a configuration record in a database. Thereafter, mobile station configuration server may from time to time transmit mobile station updates to the MS to correct software defects or to add new features) (see col. 6, lines 28-39).

Although Moles discloses a network as described, Moles does not specifically disclose a network wherein over-the-air delivery of the at least one update to the electronic device takes place after determining that one of the firmware update service option and the software update service option in the electronic device is set.

However, Shah discloses a network wherein over-the-air delivery of the at least one update takes place after determining that a service option in the electronic device is set (i.e., Once the presence of the option is confirmed, a second OTASP Data Message is sent containing a Extended Feature Change Code (EFCC). If the EFCC matches the EFCC for the mobile station, it is verified by the mobile unit, after which it may be used to unlock the mobile station,

update the feature code(s) and store the updated feature code(s) into the phone's memory (see col. 8, lines 5-48).

Regarding claim 9, Moles discloses a network (see claim 4 rejection) further comprising: one of a firmware update service function and a software update service function in the electronic device (see col. 6, lines 28-44); and a network server for facilitating network-initiated over-the-air access (i.e., mobile station configuration server) (see fig. 2, col. 6, lines 13-16), and initiating download of at least one update and updating one of the firmware and software of the electronic device (see col. 7, line 36 to col. 8, line 26), wherein the network initializes the number assignment module in the electronic device and, after determining that one of the firmware update service option and the software update service option in the electronic device is enabled (i.e., service provisioning initiates an over-the-air (OTA) process that activates in the cellular handset a Number Assignment Module) (see col. 1 line 66 to col. 2, line 2).

Although Moles discloses a network as described, Moles does not specifically disclose a network comprising over-the-air access to one of the firmware update service option and the software update service option in the electronic device.

However, Shah disclose a network comprising over-the-air access to one of the firmware update service option and the software update service option in the electronic device (see col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to provide means for simplifying the administration of parameters and updates.

Regarding claim 10, Moles discloses a network (see claim 1 rejection) wherein the electronic device comprises at least one of a: plurality of mobile electronic devices (see fig. 1, and col. 5, lines 1-5), and wherein the plurality of mobile electronic devices comprise at least one of a mobile cellular phone handset, personal digital assistant, pager, MP3 player, and a digital camera (see fig. 1, and col. 5, lines 1-5).

6. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moles in view of Shah and Bridges.

Regarding claim 11, moles discloses a mobile electronic device network adapted to update electronic devices and perform over-the-air number assignment module parameter provisioning (see abstract and see col. 1 line 66 to col. 2, line 2), the network comprising: an electronic device comprising one of firmware and software (see fig. 2, and col. 6, lines 28-39), the electronic device being communicatively coupled to at least one server (see fig. 2); and wherein the electronic device is also adapted to communicate device specifications to the network when the network attempts to provision the number assignment module parameters (i.e., when an unprovisioned mobile station accesses wireless network, then BS and/or MSC, using the handset data in HLR, identifies MS as an unprovisioned handset and performs an over-the-air (OTA) service provisioning of the MS. Either during the service provisioning or at a subsequent time, mobile station configuration server gathers configuration data from MS and stores it in a configuration record in a database. Thereafter, mobile station configuration server may from time to time transmit mobile station updates to the MS to correct software defects or to add new features) (see col. 6, lines 28-39).

Although Moles discloses a network as described, Moles does not specifically disclose a network wherein presence of support for at least one of a firmware update service option and a software update service option in the electronic device determinable by the network, wherein when enabled, the presence of support for the at least one of a firmware update service option and a software update service option indicates to the network that the electronic device is capable of updating one of firmware and software, wherein the electronic device is adapted to communicate the presence of support for the one of the firmware update service option and software update service option to the network. Nor does it disclose a network wherein an electronic device comprising number assignment module parameters specific to updating one or both of firmware or software.

However, Shah discloses a network wherein presence of support for an update service option in the electronic device determinable by the network, wherein when enabled, the presence of support for the update service option indicates to the network that the electronic device is capable of updating one of firmware and software, wherein the electronic device is adapted to communicate the presence of support for the update service option (i.e., the mobile phone is pre-programmed with a service option for changing or adding extended subscriber features, which includes assignment of an Extended Feature (EF) number. The mobile phone will also have one or more extended features change codes (EFCCs) in its memory. The network, whether it is the mobile's home network or a visited network, possesses means for determining whether a mobile phone is OTAPA capable. Note that the visited network may establish OTAPA support for a particular mobile station using IS-41 communications with the home network. In the OTAPA procedure, the network base station sends a General Page Message to the mobile phone using the

EF number. After first verifying its identity using the standardized Authentication process, if the mobile phone has OTAPA capability, it responds with a Page Response Message, indicating support for the EF by sending the EF number. If the mobile station does not support the option, the response will indicate that the option is not available. Once the presence of the option is confirmed, the base station transmits a Channel Assignment Message, telling the mobile station to proceed to the Traffic Channel. Once the mobile station is on the Traffic Channel, an OTASP Data Message is sent that an additional fee is charged for the use of the feature and requesting acknowledgment of acceptance. If accepted, a second OTASP Data Message is sent containing a Extended Feature Change Code (EFCC). If the EFCC matches the EFCC for the mobile station, it is verified by the mobile unit, after which it may be used to unlock the mobile station, update the feature code(s) and store the updated feature code(s) into the phone's memory (see col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to provide means for simplifying the administration of parameters and preserving the security of parameters.

The combination of Moles and Shah, however, does not specifically disclose a network wherein the electronic device also comprising number assignment module parameters specific to updating one or both of firmware and software.

However, Bridges discloses that in a reprogramming scenario, the PSL/IRDB will be downloaded will be downloaded with other OTAF information similar to that for new

activations. In other words, upon reprogramming, if the National Account (NA), COS, MIN (i.e., NAM parameters) and/or any other parameters change, each changed parameter is reprogrammed or downloaded into the mobile station 68 along with the new PSL/IRDB. If none of the parameters have changed, only the updated PSL/IRDB is downloaded to the mobile station 68 (see paragraph 78. Also refer to paragraph 123).

Thus, the electronic device comprises NAM parameters specific to change software or firmware.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Bridges with the teachings described by Moles, Lee, and Shah to arrive at the claimed invention. A motivation for doing so would have been to facilitate and ease over-the air provisioning process.

Regarding claim 12, Moles discloses a network (see claim 11 rejection) wherein the at least one server dispenses at least one of a plurality of updates to the electronic device (i.e., an update controller for transmitting to a first mobile station a mobile station configuration request message and for receiving from the first mobile station first configuration data transmitted by the first mobile station in response to receipt of the mobile station configuration request message. The update controller stores the first configuration data in a first configuration record. Either during the service provisioning or at a subsequent time, mobile station configuration server 160 gathers configuration data from MS 112 and stores it in a configuration record in a database. Thereafter, mobile station configuration server 160 may from time to time transmit mobile station updates to MS 112 to correct software defects or to add new features) (see abstract, and col. 6, lines 28-44).

Moles does disclose a network wherein update is dispensed to the electronic device based on device specifications communicated to the server (i.e., software and hardware revision).

Moles, however, does not specifically disclose a network wherein least one server dispenses at least one of a plurality of updates to the electronic device based upon the presence of support for the one of the firmware update service option and the software update service option communicated to the at least one server by the electronic device.

However, Shah discloses a network wherein updates to the electronic device are dispensed based upon the presence of support for the update service option communicated to the network (see col. 8, lines 5-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to provide means for simplifying the administration of parameters and preserving the security of parameters.

Regarding claim 13, Moles discloses a network (see claim 11 rejection) wherein the network is adapted to manage updating at least one of firmware and software (see col. 6, lines 28-44).

Although Moles discloses a network as described, Moles does not specifically disclose a network wherein the network is adapted to manage updating the software based upon the support for the one of a firmware update service option and a software update service option in the electronic device determinable by an over-the-air provisioning function in the network.

However, Shah discloses a network wherein the network is adapted to manage updating based upon the presence of support for the update service option in the electronic device determinable by an over-the-air provisioning function in the network (see col. 8, lines 5-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to ease over the air programming procedure.

Regarding claim 14, Moles discloses a network (see claim 13 rejection) wherein the network is adapted to provision a universal resource locator in the electronic device for at least one server in the network, wherein the at least server is employed to download updates to the electronic device (i.e., after a predetermined delay or upon acknowledgment by the user of MS 112, mobile station update controller 305 may then transfer downloadable upgrade file 324 to handset MS 112 through Internet 165 and wireless network 100) (see col. 7, lines 49-60).

Although Moles discloses a network as described, Moles does not specifically disclose a network wherein the network is adapted to determine a state of one of the firmware update service option and the software update service option in the electronic device.

However, Shah discloses a network wherein the network is adapted to determine a state of an update service option in the electronic device (see col. 6, lines 27-35, and col. 8, lines 5-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Shah with the teachings as described by

Moles to arrive at the claimed invention. A motivation for doing so would have been to ease over the air programming procedure.

Regarding claim 15, Moles discloses a network (see claim 11 rejection) wherein the electronic device comprises at least one of a plurality of mobile electronic devices (see fig. 1, and col. 5, lines 1-5), and wherein the plurality of mobile electronic devices comprise at least one of a mobile cellular phone handset, personal digital assistant, pager, MP3 player, and a digital camera (see fig. 1, and col. 5, lines 1-5).

6. Claims 16, 20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moles in view of Chang et al. (Chang), US 20020028673 A1.

Regarding claim 16, Moles discloses a method of updating software in a wireless communication device in a wireless network (see abstract), the method comprising downloading an update from a server in the wireless network (i.e., after a predetermined delay or upon acknowledgment by the user of MS 112, mobile station update controller 305 may then transfer downloadable upgrade file 324 to handset MS 112 through Internet 165 and wireless network 100) (see col. 7, lines 49-60).

Although Moles discloses a method as described, Moles does not specifically disclose a method comprising determining a value of one of a firmware update service option and a software update service option in the wireless communication device by the wireless network, and downloading an update from a server if one of the firmware update service option number is determined to have a predetermined value. Nor does it disclose a method wherein value of

update service option is determined during an over-the-air parameter administration operation for programming number assignment module parameters.

Chang discloses a method comprising determining a value of one of a firmware update service option number and a software update service option in the wireless communication device by the wireless network, and downloading an update from a server if one of the firmware update service option number is determined to have a predetermined value, wherein value of update service option is determined during an over-the-air parameter administration operation for programming number assignment module parameters (i.e., a BAND_MODE_CAP field is utilized to allow the mobile telephone service provider to obtain the capability of the mobile over the air, such that a custom PRL and NAM indicator block specific to the mobile's capability can be downloaded to the mobile. And, when a mobile is to be activated for additional service, the OTAF has no convenient way of knowing which service options the mobile may support. This service options information is critical for allowing the OTAF to initiate certain provisioning of the mobile in a home locate register (HLR), when the mobile telephone subscriber wishes to subscribe to some special services such as short message services. Thus, the NUM_SO field is utilized to describe a number of service options available to the mobile. The NUM_SO field is an eight-bit field, and is preferably set to the number of service options supported by the mobile. Similar to the NUM_FEATURES field, the NUM_SO field indicates the total number of the subsequent SERVICE_OPTION field(s) for indicating all the service options supported by the mobile. The SERVICE_OPTION field describes all supported service options (see paragraphs 27-31).

Thus, Chang discloses a method for programming a mobile telephone over the air within a mobile telephone communication network, said mobile telephone communication network includes an over-the-air function, a customer service center, a mobile switching center, a base station controller, and a plurality of base transceiver stations, said method comprising the steps of: sending a request over the air to a mobile telephone by one of said plurality of base transceiver stations within said mobile telephone communication network to interrogate said mobile telephone's protocol capability; and in response to a detection of said request, responding with a protocol capability response message over the air by said mobile telephone to said one of said plurality of base transceiver stations, wherein said protocol capability response message includes a BAND_MODE_CAP field describing band and mode capability information of said mobile telephone , wherein said protocol capability response message further includes a NUM_SO field describing a number of service options available to said mobile telephone, wherein said NUM_SO field further includes at least one SERVICE_OPTION field, wherein each SERVICE_OPTION field indicates a service option supported by said mobile telephone, and wherein said at least one SERVICE_OPTION field is utilized to initiate an appropriate provisioning of said mobile telephone (which reads on "downloading one of a firmware update and a software update from a server in the network in one of the firmware update service option service number and the software update service option number is determined to have a predetermined value") (refer to claims 1,4-7 of Chang).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Chang with the teachings described by Moles

to arrive at the claimed invention. A motivation for doing so would have been to facilitate over-the air provisioning process.

Regarding claim 20, Moles discloses a method (see claim 16 rejection) wherein downloading comprises: setting a flag in the wireless communication device indicating availability of an update package for updating the wireless communication device during an over-the-air parameter administration operation changing number assignment module parameters (i.e., mobile station update controller 305 gathers initial configuration data (i.e., manufacturer identification code, hardware revision number, and software revision number) from MS 111-114 through MSC 140 and IWF 150 during the time that each handset is being provisioned or at a subsequent time. In either case, mobile station update controller 305 stores the initial configuration data for each handset MS 111-114 in the respective mobile station parameters file 320, 330, 340 and 350. Periodically, as determined by update schedule 313, mobile station update controller 305 may request a copy of the latest software revision for MS 111-114 from the manufacturer of each handset. Subsequently, mobile station update controller 305 stores the software received from the manufacturers, if any, in the appropriate downloadable upgrade file in mobile station parameters files 320, 330, 340 and 350) (see fig. 3, col. 6, lines 5-8, lines 28-39, and line 66 to col. 7, line 35); sending a universal resource locator identifying at least one server to the wireless communication device during an over-the-air parameter administration operation changing number assignment module parameters (see fig. 3, col. 6, lines 5-8, lines 28-39, and line 66 to col. 7, line 35); and retrieving update information from the at least one server based upon the flag (see fig. 3, col. 6, lines 5-8, lines 28-39, and line 66 to col. 7, line 35, and col. 8, lines 49-59).

Regarding claim 23, Moles discloses a method (see claim 16 rejection) wherein the electronic device comprises at least one of a plurality of mobile electronic devices (see fig. 1, and col. 5, lines 1-5), and wherein the plurality of mobile electronic devices comprise at least one of a mobile cellular phone handset, personal digital assistant, pager, M23 player, and a digital camera (see fig. 1, and col. 5, lines 1-5).

7. Claims 18-19, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moles in and Chang, further in view of Shah.

Regarding claim 18, the combination of Moles with Chang discloses a method as described above (see claim 16 rejection).

Although the combination discloses a method as described, the combination does not specifically disclose a method wherein the over-the-air parameter administration operation comprises: paging one of a firmware update service option number and a software update service option number in the wireless communication device; and responding to the paging, if the wireless communication device is capable of supporting the over-the-air parameter administration operation.

However, Shah discloses a method wherein the over-the-air parameter administration operation comprises: paging an update service option number in the wireless communication device (i.e., general page message) (see col. 8, lines 18-20); verifying an identity of the wireless communication device using at least one authentication process (see col. 8, lines 20-21) and responding to the paging, if the wireless communication device is capable of supporting the

over-the-air parameter administration operation (i.e., page response message) (see col. 8, lines 22-31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to provide means for simplifying the administration of parameters and preserving the security of parameters.

Regarding claim 19, the combination discloses a method as described above (see claim 18 rejection).

Although the combination discloses a method as described, the combination does not specifically disclose a method wherein responding to the paging further comprises: indicating support for one of the firmware update service option and the software update service option by sending one of a firmware update service option number and a software update service option number, if the wireless communication device supports one of the firmware update service option and the software update service option; and indicating lack of support for one of the firmware update service option and the software update service option, if the wireless communication device does not support one of the firmware update service option and the software update service option.

However, Shah discloses a method wherein responding to the paging further comprises: indicating support for one of an update service option by sending one of an update service option number, if the wireless communication device supports the update service option, and indicating lack of support for the update service option, if the wireless communication device does not support the update service option and the software update service option (see col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to provide means for simplifying the administration of parameters and preserving the security of parameters.

Regarding claim 21, the combination discloses a method as described above (see claim 16 rejection).

Although the combination discloses a method as described, the combination does not specifically disclose a method wherein determining comprises: receiving a general page message indicating one of a firmware update service option and a software update service option by the wireless communication device; verifying support of one of the firmware update service option and the software up-date service option by the wireless communication device; and sending a response to a base station indicating support of one of firmware and software updates when the wireless communication device verifies support of one of the firmware update service option and the software update service option.

However, Shah discloses a method wherein determining comprises: receiving a general page message indicating an update service option by the wireless communication device, verifying support of the update service option by the wireless communication device, and sending a response to a base station indicating support of the update when the wireless communication device verifies support of one of the firmware update service option and the software update service option (see col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ease over the air programming procedure.

Regarding claim 22, the combination discloses a method as described above (see claim 16 rejection).

Although he combination discloses a method as described, the combination does not specifically disclose a method wherein verifying further comprises: paging the wireless communication device for one of a firmware update service option number and a software update service option number; comparing one of the firmware update service option number and the software update service option number received on one of a stored firmware update service option number and a stored software update service option number in the wireless communication device, to determine a match by the wireless communication device; and responding to the paging indicating a negative match if a match does not occur.

However, Shah discloses a network wherein the mobile phone is pre-programmed with a service option for changing or adding extended subscriber features, which includes assignment of an Extended Feature (EF) number. The mobile phone will also have one or more extended features change codes (EFCCs) in its memory. The network, whether it is the mobile's home network or a visited network, possesses means for determining whether a mobile phone is OTAPA capable. Note that the visited network may establish OTAPA support for a particular mobile station using IS-41 communications with the home network. In the OTAPA procedure, the network base station sends a General Page Message to the mobile phone using the EF number. After first verifying its identity using the standardized Authentication process, if the

mobile phone has OTAPA capability, it responds with a Page Response Message, indicating support for the EF by sending the EF number. If the mobile station does not support the option, the response will indicate that the option is not available. Once the presence of the option is confirmed, the base station transmits a Channel Assignment Message, telling the mobile station to proceed to the Traffic Channel. Once the mobile station is on the Traffic Channel, an OTASP Data Message is sent that an additional fee is charged for the use of the feature and requesting acknowledgment of acceptance. If accepted, a second OTASP Data Message is sent containing a Extended Feature Change Code (EFCC). If the EFCC matches the EFCC for the mobile station, it is verified by the mobile unit, after which it may be used to unlock the mobile station, update the feature code(s) and store the updated feature code(s) into the phone's memory (see col. 8, lines 5-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ease over the air programming procedure.

8. Claims 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moles in view of Shah and Chang.

Regarding claims 24, 27-28, Moles discloses a computer-readable storage, having stored thereon a computer program having a plurality of code sections enabling over-the-air updating of at least one of firmware and software in an electronic device via a wireless network (see fig. 2, and col. 6, lines 28-39), and engaging in over-the-air updating of the software of the electronic device via wireless network (see col. 6, lines 13-29).

Although Moles discloses a storage as described, Moles does not specifically disclose a storage comprising: receiving at least one message from a server over the wireless network as part of an over the air parameter administration process, the message comprising a service option parameter; determining whether a value of the service option parameter corresponds to one of a firmware update service option and a software update service option; and engaging in over the air updating of the at least one of firmware and software of the electronic device via the wireless network, if it is determined that the value of the service option parameter corresponds to the one of a firmware update service option and a software update service option. Nor does it disclose a network wherein a received message if for programming number assignment module parameters

In an analogous art, Shah discloses a network wherein the mobile phone is pre-programmed with a service option for changing or adding extended subscriber features, which includes assignment of an Extended Feature (EF) number. The mobile phone will also have one or more extended features change codes (EFCCs) in its memory. The network, whether it is the mobile's home network or a visited network, possesses means for determining whether a mobile phone is OTAPA capable. Note that the visited network may establish OTAPA support for a particular mobile station using IS-41 communications with the home network. In the OTAPA procedure, the network base station sends a General Page Message to the mobile phone using the EF number. After first verifying its identity using the standardized Authentication process, if the mobile phone has OTAPA capability, it responds with a Page Response Message, indicating support for the EF by sending the EF number. If the mobile station does not support the option, the response will indicate that the option is not available. Once the presence of the option is confirmed, the base station transmits a Channel Assignment Message, telling the mobile station

to proceed to the Traffic Channel. Once the mobile station is on the Traffic Channel, an OTASP Data Message is sent that an additional fee is charged for the use of the feature and requesting acknowledgment of acceptance. If accepted, a second OTASP Data Message is sent containing a Extended Feature Change Code (EFCC). If the EFCC matches the EFCC for the mobile station, it is verified by the mobile unit, after which it may be used to unlock the mobile station, update the feature code(s) and store the updated feature code(s) into the phone's memory (see col. 8, lines 5-48).

Shah also discloses that the received message is a cellular network message for paging a subscriber telephone (as related to claim 27) (see col. 8, lines 18-20), and wherein the received service option parameter is compatible with the Electronics Industries Alliance (EIA)/Telecommunications Industry Association (TIA) IS-683 standard (as related to claim 28) (see col. 8, lines 49-58)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings as described by Shah with the teachings as described by Moles to arrive at the claimed invention. A motivation for doing so would have been to ease over the air programming procedure.

The combination of Moles and Shah, however, does not specifically disclose a network wherein a message is received from the network as part of programming number assignment module parameters.

However, Chang discloses a method wherein a message is received from the network as part of programming number assignment module parameters (see paragraphs 27-31 and claims 1, 4-7 of Chang).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate over-the air provisioning process.

Regarding claim 25, Moles discloses a storage (see claim 24 rejection), wherein the electronic device is a battery-operated handheld electronic device (see fig. 1, and col. 5, lines 1-5).

Regarding claim 26, Moles discloses a storage (see claim 25 rejection) wherein the electronic device is a cellular telephone (see fig. 1, and col. 5, lines 1-5).

Regarding claim 29, the combination of Moles, Shah, and Wang discloses a storage (see claim 24 rejection) further comprising sending a message over the wireless network indicating the presence of support for the one of a firmware update service option and a software update service option, if it is determined that the value of the service option parameter corresponds to the one of a firmware update service option and a software update service option (see Shah's col. 8, lines 5-48, and Chang's paragraphs 27-31 and claims 1, 4-7).

Regarding claim 30, Moles discloses storage (see claim 24 rejection) further comprising verifying the identity of the server to the electronic device using an authentication procedure, prior to engaging in over the air updating (i.e., mobile station update controller 305 examines manufacturer identification codes in mobile station parameters files 320, 330, 340 and 350 for a match with the indicated manufacturer identification code. If mobile station update controller 305 determines that the manufacturer identification code in a particular mobile station parameter file matches the required manufacturer identification code, mobile station update controller 305

transfers the indicated subscriber alert message to the associated mobile station, MS 112 for example, through Internet 165 (see col. 8, lines 4-13).

Note: Examiner wants to respectfully reminds applicants that the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this correspondence, the motivation is found in the knowledge generally available to one of ordinary skill in the art, i.e., to ease or facilitate over-the-air provisioning.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PIERRE-LOUIS DESIR whose telephone number is (571)272-7799. The examiner can normally be reached on Monday-Friday 9:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571)272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Pierre-Louis Desir/
Examiner, Art Unit 2617

/Dwayne D. Bost/
Supervisory Patent Examiner,
Art Unit 2617